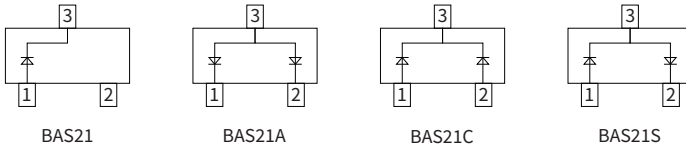
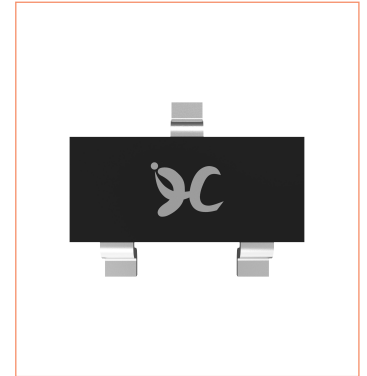


### Features

- Fast Switching Device (TRR <50nS)
- Power Dissipation of 225mW
- High Stability and High Reliability
- Low reverse leakage



### SOT-23



### Mechanical Data

- Case: SOT-23  
Molding compound meets UL 94V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Cathode line denotes the cathode end

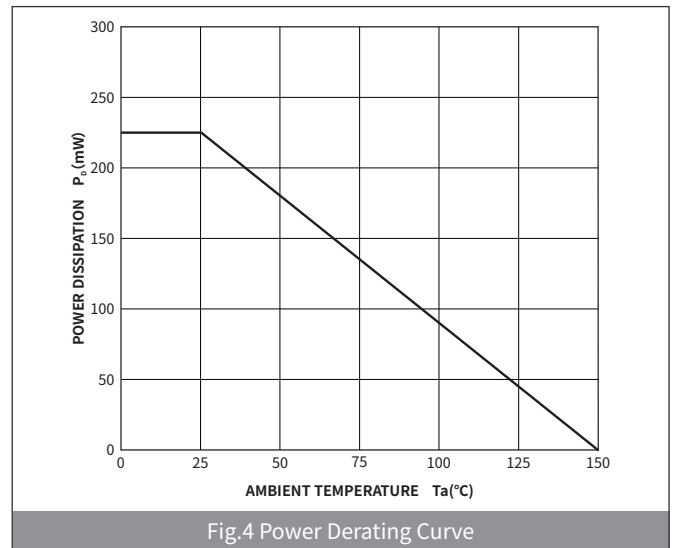
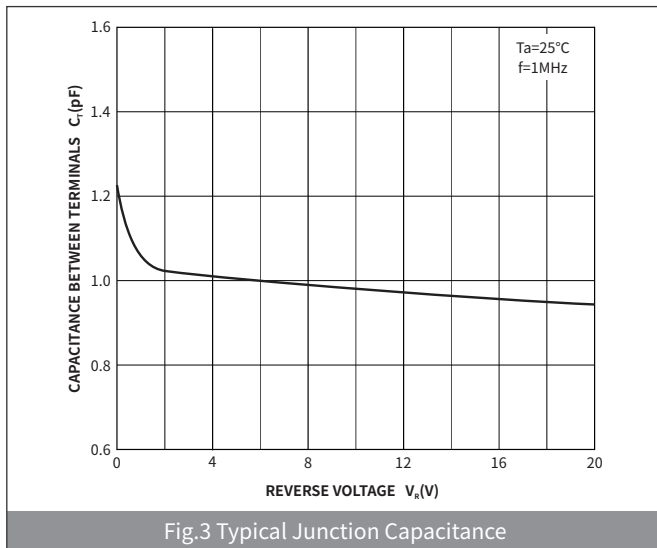
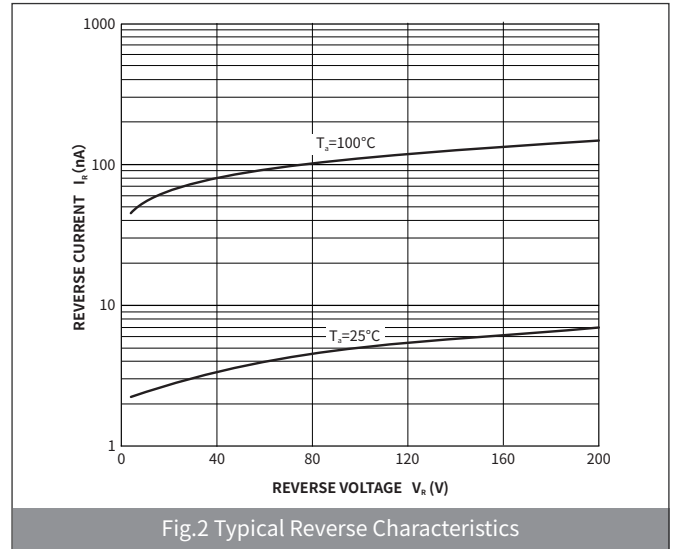
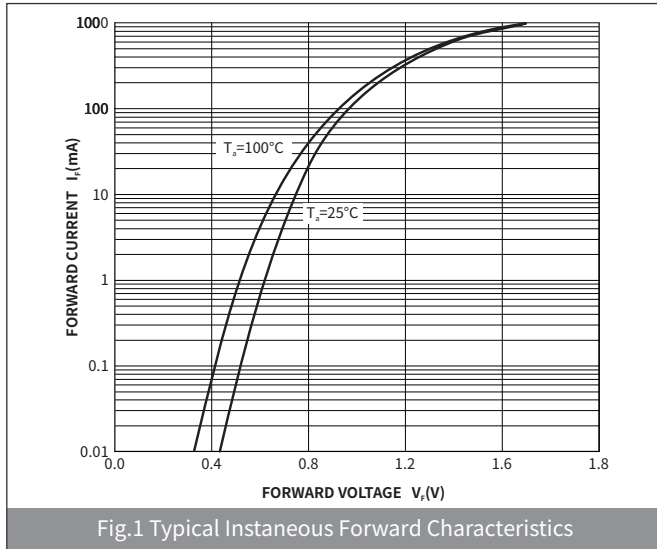
### Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	VALUE
Maximum repetitive peak reverse voltage	$V_{RRM}$	V	250
Maximum RMS Voltage	$V_{RMS}$	V	200
Reverse Breakdown voltage @ $I_R=100\mu A$	$V_{(BR)R}$	V	250
Maximum Average Forward Rectified Current	$I_{F(AV)}$	mA	200
Forward continuous current	$I_{FM}$	mA	400
Repetitive peak forward current	$I_{FRM}$	mA	625
Non-repetitive Peak Forward Surge Current @ t=8.3ms Half-sine wave	$I_{FSM}$	A	2.5
Power Dissipation	$P_d$	mW	225
Storage temperature	$T_{stg}$	°C	-55 ~ +150
Junction temperature	$T_j$	°C	150
Typical Thermal Resistance	$R_{\theta J-A}$	°C /W	555

### Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	UNIT	Min	Max
Maximum instantaneous forward voltage	$I_F=100mA$	$V_{F1}$	V	—	1.0
	$I_F=200mA$	$V_{F2}$		—	1.25
Reverse Leakage Current	$V_R=200V$	$I_R$	$\mu A$	—	0.1
Maximum reverse recovery time	$I_F=30mA, I_{rr}=0.1 \times I_{R1}, R_L=100\Omega$	$T_{rr}$	ns	—	50.0
Total capacitance	$V_R=0V, f=1MHz$	$C_T$	pF	—	5.0

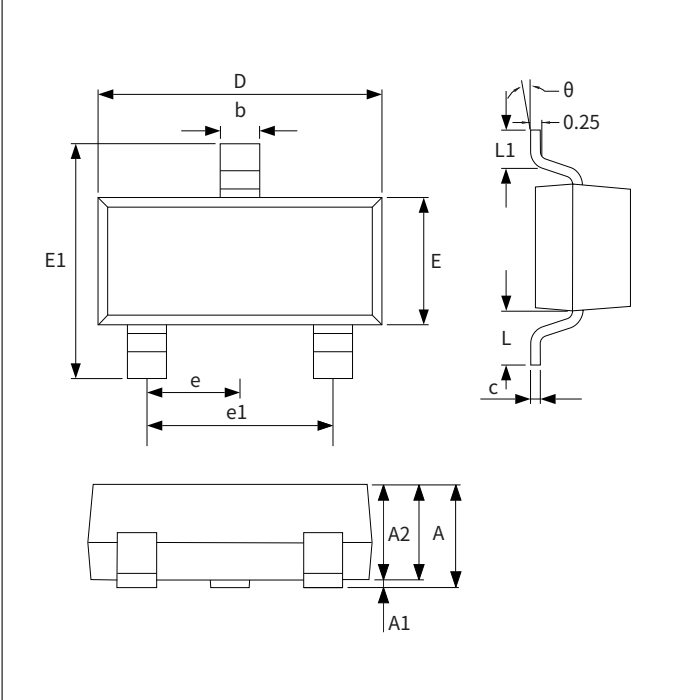
► Ratings And Characteristics Curves (Ta=25°C Unless otherwise specified)



### Ordering Information

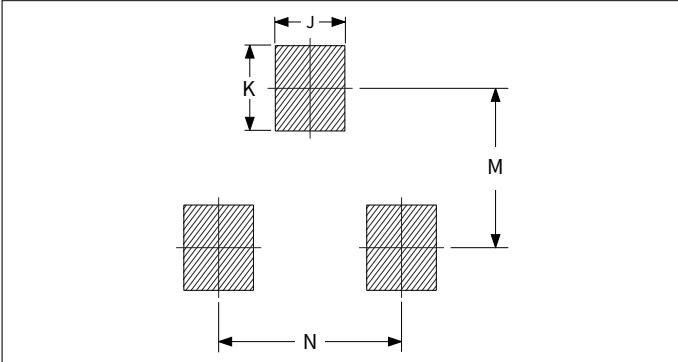
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-23	R1	0.008	3000	30000	120000	7"

### Package Outline Dimensions (SOT-23)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.15	0.035	0.045
A1	-	0.10	-	0.004
A2	0.90	1.05	0.035	0.041
b	0.30	0.50	0.012	0.020
c	0.10	0.20	0.004	0.008
D	2.80	3.00	0.110	0.118
E	1.20	1.40	0.047	0.055
E1	2.25	2.55	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.80	2.00	0.071	0.079
L	0.550REF		0.022REF	
L1	0.30	0.50	0.012	0.020
$\theta$	-	8°	-	8°

### Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.80	-	0.031	-
K	-	0.90	-	0.035
M	2.00	-	0.078	-
N	-	1.90	-	0.074